What is Claimed is:

- 1. An AI system for protein superfamily sequence classification which utilizes an NN system to classify a series of protein families, characterized in:
- further comprising a fuzzy logic system integrated with a NN system to improve the robustness, convergence and correctness of the system.
 - 2. The system in accordance with claim 1, wherein the system comprises a CAM.
 - 3. The system in accordance with claim 2, wherein the said CAM is used to compare the protein family data.
- The system in accordance with claim 1, wherein the said fuzzy logic system can be
 directed coded into the said NN system.
 - 5. The system in accordance with claim 1, wherein the input data of the NN system are weighted by a fuzzy logic before inputted into the NN system.
 - 6. The system in accordance with claim 1, wherein the input data of the NN system is transformed into the data of the fuzzy logic.
- 7. An AI system for protein family classification which utilizes an NN system to classify a series of protein families, characterized in:
 - further comprising a fuzzy logic system to improve the robustness, convergence and correctness of the system by utilizing the CAM to compare the protein family data and integrating the fuzzy logic system and an NN system.
- 20 8. The system in accordance with claim 7, wherein the said fuzzy logic system can be directed coded into the said NN system.
 - 9. The system in accordance with claim 7, wherein the input data of the NN system are weighted by a fuzzy logic before inputted into the NN system.
 - 10. The system in accordance with claim 7, wherein the input data of the NN system is

transformed into the data of the fuzzy logic.

11. The system in accordance with claim 7, wherein the AI system can be integrated into a portable interface card.